

**REMARKS**

Claims 1, 2, 6, 8 and 15-22 are pending in this application. By this Amendment, independent claims 1 and 15 are amended, claims 17-22 are added, and claim 11 is canceled without prejudice to or disclaimer of the subject matter recited therein. Support for the amendments and added claims can be found, for example, in Figs. 3-9. No new matter is added. Reconsideration of the application in view of the above amendments and the following remarks is respectfully requested.

Applicant appreciates the courtesies shown to Applicant's representative by Examiner Preston in the May 3, 2007 personal interview. Applicant's separate record of the substance of the interview is incorporated into the following remarks.

**I. Rejections of Claims 1, 2, 6, 8, 11 and 16**

The Office Action rejects claims 1, 6, 8 and 16 under 35 U.S.C. §103(a) over Iio, U.S. Patent No. 4,886,392, in view of Weinstein, U.S. Patent No. 4,943,178; and rejects claims 2 and 11 under 35 U.S.C. §103(a) over Sarkar et al. (Sarkar), U.S. Patent Application Publication No. 2004/0066102 A1, in view of Iio, and further in view of Weinstein. The rejection of canceled claim 11 is moot. The rejections of the remaining claims are respectfully traversed.

As discussed during the interview, the combination of Iio and Weinstein fails to disclose or suggest (1) a rectifying element that has a disk shape including a diameter which is larger than a thickness of the rectifying element so that the rectifying element comprises a flattened disk shape; and (2) that the grooves are predominantly disposed on the one side of the receiving member from which the inserting member is press-fit in the engaging hole, as recited in independent claim 1.

As discussed during the interview with respect to (1), Iio discloses that the shaft 5 (allegedly corresponding to the claimed inserting member or rectifying element) is a rod (see

Figs. 1, 2 and 4-7). Thus, the diameter of the shaft 5 is much smaller than the length of the shaft 5. Weinstein discloses a shaft 24 that also is a rod (see Figs. 3-5). Thus, the diameter of the shaft 24 of Weinstein also is much smaller than the length of the shaft 24. Therefore, neither reference discloses or suggests a rectifying element that has a disk shape including a diameter which is larger than a thickness of the rectifying element so that the rectifying element comprises a flattened disk shape, as recited in claim 1.

As discussed during the interview with respect to (2), Iio discloses that the grooves 16 are equally disposed along the inner surface of the shaft hole 15 (see Fig. 4) or a single groove 16 on the side of the shaft hole 15 that is away from the side of the shaft hole 15 from which the shaft 5 is inserted (see Fig. 5). Weinstein discloses that the grooves 58 are equally disposed along the inner surface of the internal portion (hole) 32 (see Figs. 3-5). However, neither reference discloses or suggests that the grooves are predominantly disposed on the one side of the receiving member from which the inserting member is press-fit in the engaging hole, as recited in claim 1.

Thus, claim 1 is patentable over the combination of Iio and Weinstein.

Because claims 2, 6, 8 and 16 incorporate the features of claim 1, and because Sarkar fails to overcome the deficiencies of Iio and Weinstein, these claims also are patentable over Iio and Weinstein. Therefore, it is respectfully requested that the rejections be withdrawn.

## II. Rejection of Claim 15

The Office Action rejects claim 15 under 35 U.S.C. §103(a) over Mansel, U.S. Patent No. 4,118,134, in view of Iio. The rejection is respectfully traversed.

As discussed during the interview, the combination of Mansel and Iio fails to disclose or suggest (1) a rectifying element that has a disk shape including a diameter which is larger than a thickness of the rectifying element so that the rectifying element comprises a flattened

disk shape; and (2) that the grooves are predominantly disposed on the sheared surface of the inner periphery of the receiving member, as recited in independent claim 15.

As discussed during the interview with respect to (1), Mansel teaches that the pivot shaft 14 (allegedly corresponding to the claimed inserting member or rectifying element) is a rod (see Figs. 2, 5 and 6). Thus, the diameter of the pivot shaft 14 is much smaller than the length of the pivot shaft 14. As discussed above, Iio suffers from the same deficiency. Therefore, neither of the references discloses or suggests a rectifying element that has a disk shape including a diameter which is larger than a thickness of the rectifying element so that the rectifying element comprises a flattened disk shape, as recited in claim 15.

As discussed during the interview with respect to (2), the Office Action acknowledges that Mansel fails to disclose any grooves in the inner periphery. As discussed above, Iio teaches that grooves 16 are equally disposed along the inner surface of the shaft hole 15 (see Fig. 4) or a single groove 16 (see Fig. 5) on the side of the shaft hole 15 that is away from any sheared surface (i.e., the top portion---see, for example, page 9, line 4 of the specification) of the shaft hole 15. Thus, neither reference discloses or suggests that the grooves are predominantly disposed on the sheared surface of the inner periphery of the receiving member, as recited in claim 15. Therefore, claim 15 is patentable over the combination of Mansel and Iio. Thus, it is respectfully requested that the rejection be withdrawn.

### **III. Added Claims**

Added claims 17-22 also are patentable over the above references for at least their dependency on independent claims 1 and 15, as well as for the additional features they recite.

### **IV. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of all pending claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

James A. Oliff  
Registration No. 27,075

David R. Kennedy  
Registration No. 57,241

JAO:DRK/kxs

Date: May 4, 2007

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

**DEPOSIT ACCOUNT USE  
AUTHORIZATION**  
Please grant any extension  
necessary for entry;  
Charge any fee due to our  
Deposit Account No. 15-0461